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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,072	09/14/2000	John Border	PD-200053	1446

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PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER

EL CHANTI, HUSSEIN A

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,072

Applicant(s)

BORDER ET AL.

Examiner

Hussein A El-chanti

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to application filed on Sep. 14, 2000. Claims 1, 2, 4, 30, 31, 33 and 60 were canceled. Claims 3, 8-11, 14, 18-22, 25-29, 32, 37-40, 43, 47-50 and 52-59 were amended. Claims 61 and 62 were newly added. Claims 1-60 are pending examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 3, 5-7, 10-21, 25, 26, 29 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Alles et al., U.S. Patent No. 6,466,976 (referred to hereafter as Alles).

As to claims 3 and 32, Alles teaches a network apparatus and method comprising:

a proxy which facilitates communication with other network entities by performing at least one performance enhancing function, the proxy communicating with the other network entities via a first type of connection and other network entities via a second type of connection (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 44-col. 10

lines 11 where the subscriber is allocated more network bandwidth according to the processing rules or the time of the day).

the proxy establishes multiple connections of the first type associated with different applications and includes:

a spoofing element, which only spoofs connections of the first type associated with at least one of applications with high throughput and applications for which reduced startup latency is desired (see col. 12 lines 39-67 and col. 9 lines 44-col. 10 lines 11 and col. 12 lines 52-58, the processing rule processes packets receive from a designated IP address "SubsA" connected through one of the ports and discards all other packets).

As to claim 5, Alles teaches the apparatus of claim 3 wherein said spoofing element assigns spoofing resources including buffer space and control blocks to the spoofed connections (see col. 8 lines 4-10).

As to claim 6, Alles teaches the apparatus of claim 3 wherein said spoofing element spoofs connections using at least one spoofing rule based on destination address, source address, destination port number, source port number, options, a differentiated services (DS) field or combinations thereof (see col. 12 lines 39-67, the processing rule processes packets receive from a designated IP address "SubsA" connected through one of the ports and discards all other packets).

As to claim 7, Alles teaches the apparatus of claim 6 wherein said spoofing element defines the at least one spoofing rule in a spoofing profile (see col. 12 lines 39-

45 and col. 2 lines 55-63, processing rules can be specified before communications is activated).

As to claim 10, Alles teaches the apparatus of claim 3 wherein the proxy includes:

a protocol element which multiplexes multiple connections of the first type onto a single connection of the second type (see col. 9 lines 6-25).

As to claim 11, Alles teaches the apparatus of claim 3 wherein the proxy includes:

a prioritization element which prioritizes connections of the first type to determine what priority level of the connection of the second type, each of the connections of the first type are assigned (see col. 9 lines 25-37).

As to claim 12, Alles teaches the apparatus of claim 11 wherein said prioritizing element prioritizes connections using at least one prioritizing rule based on destination address, source address, destination port number, source port number, a differentiated services (DS) field, a type of data contained within the connection or combinations thereof (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 13, Alles teaches the apparatus of claim 12 wherein said prioritizing element defines the at least one prioritizing rule in a prioritizing profile (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 14, Alles teaches the apparatus of claim 3 wherein the proxy includes:

a path selection element which selects a path for data associated with connections of the first type across connections of the second type or connections of other types (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 15, Alles teaches the apparatus of claim 14 wherein said path selection element can select up to N paths ($N > 1$) where the Nth path is selected only if the (N-1) path fails (see col. 6 lines 1-34).

As to claim 16, Alles teaches the apparatus of claim 15 wherein said path selection element selects a path using at least one path selection rule based on priority, destination address, source address, destination port number, source port number, protocol, a differentiated services (DS) field or combinations thereof (see col. 12 lines 24-67).

As to claim 17, Alles teaches the apparatus of claim 16 wherein said spoofing element defines the at least one path selection rule in a path selection profile (see col. 6 lines 1-34).

As to claim 18, Alles teaches the apparatus of claim 3 wherein the proxy includes:

a compression/encryption element, which compresses and/or encrypts data associated with connections of the first type for transmission across connections of the second type (see col. 12 lines 24-38).

As to claim 19, Alles teaches the apparatus of claim 3 wherein the first connection uses a high layer protocol (see col. 12 lines 24-67).

As to claim 20, Alles teaches the apparatus of claim 3 wherein the first connection uses one of the Transmission Control Protocol (TCP) and the User Datagram Protocol (UDP) (see col. 12 lines 24-38).

As to claim 21, Alles teaches the apparatus of claim 3 wherein the second connection is a backbone connection (see col. 7 lines 27-34).

As to claim 25, Alles teaches the apparatus of claim 3 wherein said network apparatus is a component of a network gateway (see col. 7 lines 27-34).

As to claim 26, Alles teaches the apparatus of claim 3 wherein said network apparatus is a component of a host (see fig. 1 and its corresponding illustration).

As to claim 29, Alles teaches the apparatus of claim 3 wherein said network apparatus is a component of a router (see col. 7 lines 27-34).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8, 22, 24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Dillon, U.S. Patent No. 6,519,651.

As to claim 8, Alles teaches network apparatus is connected to other network entities via a first type of connection and other network entities via a second type of connection (see the rejection of claim 3).

Alles does not explicitly teach the limitation "a spoofing element which spoofs acknowledgements". However Dillon teaches an apparatus for network access having a spoofing element that spoofs acknowledgements (see col. 15 lines 14-30).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by implementing an acknowledgement spoofing element as in Dillon because doing so would allow the faster communication over the network apparatus by discarding packets with spoofed acknowledgements and therefore allocating more network resources for processing of other data packets received by the network.

As to claim 22, Alles does not teach the limitation "backbone connection is via a wireless link". However Dillon teaches a backbone connection via a wireless link (see col. 4 lines 39-56).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by incorporating a backbone connection via a wireless link as taught by Dillon because doing so would allow the user to communicate with the communication network using wireless communication and therefore being able to send communicate from any geographic location enabled with wireless transmission and thus overcoming the need to use a network connected workstation which usually has a fixed geographic location.

As to claim 24, Dillon teaches the wireless link is a satellite link (see col. 4 lines 39-56).

As to claim 27, Dillon teaches network apparatus is a component of a hub (see col. 12 lines 40-47).

As to claim 28, Dillon teaches the network apparatus is a component of a VSAT (see col. 13 lines 31-38).

4. Claims 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Dillon, further in view of Milton et al., U.S. Patent No. 6,721,333 (referred to hereafter as Milton).

Alles teaches a method and instructions for providing data communication over a network comprising:

communicating with a plurality of hosts over a plurality of connections corresponding to a plurality of applications resident on the respective hosts (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 44-col. 10 lines 11);

determining which of the plurality of connections is to receive priority processing for transport over a backbone connection established (see col. 9 lines 25-37);

transmitting the data streams over the backbone connection and concurrently acknowledging the corresponding hosts (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 44-col. 10 lines 11).

Alles does not teach the limitation "backbone connection is via a wireless link". However Dillon teaches a backbone connection via a wireless link (see col. 4 lines 39-56).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by incorporating a backbone connection via a wireless link

as taught by Dillon because doing so would allow the user to communicate with the communication network using wireless communication and therefore being able to send communicate from any geographic location enabled with wireless transmission and thus overcoming the need to use a network connected workstation which usually has a fixed geographic location.

Alles and Dillon do not explicitly teach the claimed limitation "compressing data streams associated with the priority connections". However Milton teaches a method of compressing data packet according to a priority of the received data (see col. 5 lines 15-35).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by implementing the rule of compressing data according to an associated priority as taught by Milton because doing so would allow the service provider to only transmit data packets that are compressed having smaller size and therefore result in a faster communication.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Klaus, U.S. Patent No. 5,892,903.

Alles teaches network apparatus is connected to other network entities via a first type of connection and other network entities via a second type of connection (see the rejection of claim 3).

Alles does not explicitly teach the limitation "a spoofing element which spoofs a three way handshake". However Klaus teaches an apparatus in a communication

network having a spoofing element that spoofs a three-way handshake communication (see col. 9 lines 43-col. 10 lines 37).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by incorporating a three way handshaking spoofing element as taught by Klaus because doing so would allow the faster communication over the network apparatus by allocating more window size using three way handshaking and therefore allocating more network resources for processing of other data packets received by the network.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Dillon further in view of Jorgensen, U.S. Patent No. 6,590,885.

Alles and Dillon do not teach the limitation "the wireless link has high latency and high error rate". However Jorgensen teaches a wireless transmission system with high latency and high error rate (see col. 75 lines 5-40).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by using the network apparatus in wireless link has high latency and high error rate as taught by Jorgensen because doing so would allow the user to minimize the data flow according to Alles's path profiles and therefore resulting in a faster communication and less error rate.

7. Claims 34-60 do not teach or define any additional limitation over claims 3, and 5-29 and therefore are rejected for similar reasons.

8. Applicant's arguments filed have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that; A) Alles does not teach the limitation "only spoofs connections of the first type associated with at least one of applications with high throughput and applications for which reduced startup latency is desired".

In response to A) Alles teaches rules where the subscriber receives from a designated IP address "SubsA" connected through one of the ports and discards all other packets (see col. 12 lines 39-67 and col. 9 lines 44-col. 10 lines 11 and col. 12 lines 52-58). The discarding and accepting of data packets is done selectively by the user by designating the IP addresses where the discarding is to be applied to and therefore the discarding of packets from a particular IP address meets the scope of the claimed limitation "only spoofs connections of the first type associated with at least one of applications".

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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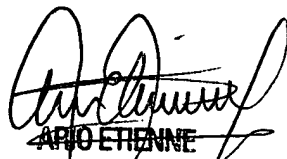
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A El-chanti whose telephone number is (703)305-4652. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein El-chanti

April 29, 2004


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